Bushfires will affect people in many ways, from those whose homes are damaged or destroyed to those who lose property, stock, crops, water supplies, soils or pastures.

Post-fire land management support and advice is available on our website or from your local natural resources centre.


Pastures and livestock

Allowing time for your pastures to recover and protecting productive land is critical for future sustainability of your property.

Exclude stock from areas affected by fires, particularly areas which are vulnerable to erosion such as hills, sandy soils and slopes.

Consider reducing your stocking rate by selling stock, sending stock to agistment, or by placing stock in containment areas.

Reduce grazing pressure by controlling feral animals such as rabbits.

Sheep owners: be aware that your first shearing time may be difficult due to ash in the fleece.

Assessing pasture post fire:

- **Cool-moderate burn**: most dead plant material burnt; some seed and perennial grasses and clovers survive. There will usually be a small amount of stubble or unburnt pasture remaining.

- **Hot burn**: all dead plant material, many seeds, young and weaker perennial grasses destroyed. The topsoil usually appears charred and bare.

- **Very hot burn**: the soil is virtually sterilised. All plant material and seed is destroyed as the fire burns into the top organic matter layer of the soil.

Good management practices may assist the recovery of pasture after fire and help to promote native grass pastures. Contact your Natural Resources District Officer or Sustainable Agriculture Officer for further advice.
Water systems

Check water supplies, for people and animals, as they may be damaged or contaminated due to ash and smoke.

Check poly pipe, plastic tanks and fittings as they may be burnt or non-existent.

Pumps may be damaged and unsafe. Electric pumps should be checked by a qualified electrician.

Your water supply may appear fine until there is rain and ash run-off. Continue to monitor during summer rains and season break.

Wind and water-borne material such as ash and soil from paddocks with inadequate groundcover may be blown or washed into dams resulting in algal growth and fouling of the dam.

Symptoms are dark water, a bad smell and black scum around the water’s edge which may also prevent stock accessing the water. It is believed the water is not poisonous to livestock, but it may be harmful to young or weak stock. However, if the algal growth is blue-green algae (cyanobacteria), then toxins may accumulate in the water.

During summer, storms can move large volumes of silt. This can happen anytime until ground cover establishes.

Protect surface run-off areas and waterways from stock movement by ensuring exclusion fencing and trough watering points are functional. Temporary sediment fences can be placed at strategic points to limit ash and soil run-off entering dams and watercourses until adequate levels of ground cover can re-establish.

Use this opportunity to review the location of your watering points.

Weed incursion

Feed out hay and stock feed in a confined area to reduce likelihood of weeds being spread throughout the property. (Confining stock will also protect burnt soil from disturbance and erosion risk, protect dams and waterways, and give pasture plants a chance to re-establish once it rains). Monitor feed out areas and be suspicious of unfamiliar plants that germinate.

Ensure that vehicles and equipment of contractors and advisors are clean and free of weeds before entering your property.

Fire will often cause a mass germination of weeds. Utilise the weed identification skills of your local Natural Resources District Officer or an agronomist to identify suspect plants and formulate a management strategy.

Containment areas

Containment areas for livestock are recommended to protect your land, livestock and dams until pasture plants adequately re-establish after fire.

- Stock containment allows for closer monitoring of stock health and welfare.
- Temporary fencing can be used, giving you time to fix or replace other fences.
- Only one water point needs to be monitored, giving you time to fix or replace other water points.
- Supplementary feeding takes place within containment areas and increases feed utilisation efficiency.
- Be careful where your hay comes from as bringing weeds onto your property is undesirable.
- Monitor and control weeds regularly as part of an integrated pasture management program. Be suspicious of unfamiliar plants that germinate.
- Ideally, containment areas are located in low erosion risk areas (no more than 5% slope) and are at least 50 metres from a watercourse.

- Containment areas provide time for the rest of your property to recover. Pasture can germinate and establish, this reduces erosion potential and gives you the ability to manage weeds.
Fences
Replacing fences is often seen as a priority job after fire and there will be a significant demand on local fencing resources. However, re-fencing, followed by re-stocking burned land too soon will significantly slow recovery. Your Natural Resources District Officer can provide advice regarding when to re-stock. Fencing may not be as urgent as you think.

Points to consider regarding fence replacement:
- Patching fences is a short-term measure as the galvanised netting and wire once affected by fire will perish after a couple of years. Burnt fences will ultimately need to be replaced.
- Every wooden strainer should be checked as they can burn underground. Damage may not be noticeable until they are worked on.
- You now have the opportunity to review your property’s fencing layout, e.g. fence to land class, fence off watercourses and regenerating native vegetation, and arrange laneways and access points for stock, fire appliances and machinery movement within your boundary. Your Natural Resources District Officer can assist with this planning.

Erosion management
Fire-affected soils are extremely prone to wind and water erosion. Steep terrain is at risk particularly in the early months of the year. Retain soil structure and reduce soil loss by minimising soil disturbance in all areas affected by fire.
Encourage regeneration of native pastures and perennial pasture areas by containing stock and controlling feral animals.
Utilise hay bales, shade cloth and fallen limbs by placing on the soil surface, to reduce surface water flow velocity and loss of soil in critical areas.

A cover crop may be appropriate in some situations to reduce top soil loss and erosion. Contact your Natural Resources District Officer for further advice.

Property planning
Use this time to consider the layout of your property. Consider fencing to land class, protecting regenerating paddock trees, native vegetation and watercourses.
Think about suitable placement of stock watering points.
Consider attending a Land Management Course, seek the assistance of an agronomist or contact your local Natural Resources Centre for information on property planning.

Other aspects of recovery
Contact your local natural resources centre to discuss kangaroo management and to obtain a destruction permit if necessary.
Photograph areas of damage and areas that have survived. Take landscape shots as well for reviewing later as your property recovers.
You are not alone in your recovery. Share your knowledge and work collaboratively with your neighbours on issues such as weed management, pest animal control and water resource management.

Further information
Post-fire natural resources management information is available on our website or from your local natural resources centre. www.naturalresources.sa.gov.au/adelaidemtloftyranges
Natural resources centres
Gawler (08) 8115 4600
Black Hill (08) 8336 0901
Willunga (08) 8550 3400

Acknowledgements: This information has been modified from Natural Resources SA Murray-Darling Basin's fire recovery fact sheet.